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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/615,372	07/08/2003	Joerg Moisel	510.1077	1348
23280	7590	05/06/2005	EXAMINER	
DAVIDSON, DAVIDSON & KAPPEL, LLC 485 SEVENTH AVENUE, 14TH FLOOR NEW YORK, NY 10018			ENGLISH, PETER C	
			ART UNIT	PAPER NUMBER
			3616	

DATE MAILED: 05/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/615,372

Applicant(s)

MOISEL ET AL.

Examiner

Peter C. English

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-49 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-49 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 July 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 20030708.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## DETAILED ACTION

### *Drawings*

1. The drawings are objected to because:

In Fig. 2, the lead line for reference number 1a is not directed to the “seat surface”, i.e., the surface on which a person is seated. See paragraph 35.

Figs. 2, 3 and 5 contain dark and/or solid shading which is not permitted because it cannot be clearly reproduced.

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the following features must be shown or canceled from the claims:

Transmitters spaced closer together in a lower portion of the back rest (claim 8).

A light receiver(s) disposed in or on a roof liner (claim 10).

An optical element in the form of an aperture (claims 15 and 41).

An optical element associated with a transmitter(s) for aligning emitted light signals (claims 16 and 42).

An air bag deployment apparatus (claims 24 and 48).

Receivers spaced closer together in a lower portion of the back rest (claim 34).

A light transmitter(s) disposed in or on a roof liner (claim 36).

No new matter should be entered.

3. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Specification***

4. The specification is objected to because:

In paragraph 34, at line 10, “back rest” should be “head restraint”.

In paragraph 35, at line 5, “staggered by height” is not clearly understood and appears to be inaccurate since the rows of receivers shown in Fig. 2 are not “staggered”.

In paragraph 37, at line 8, “an own...” is grammatically incorrect and confusing.

In paragraph 37, at line 17, “back rest” should be “head restraint”.

In paragraph 38, at line 2, “8” should be deleted. Note that reference number 8 corresponds to the filter shown in Fig. 3.

In paragraph 40, at line 3, “transmitters” should be “receivers”. Note that paragraphs 39 and 40 refer to the embodiment shown in Fig. 1 (see paragraph 39, line 3).

In paragraph 40, at line 4, the first occurrence of “receiver” should be “transmitter”.

In paragraph 40, at line 4, “receiver does” should be “receivers do”.

Appropriate correction is required.

***Claim Objections***

5. Claims 2, 13, 22 and 39 are objected to because:

In claim 2, at line 1, the second occurrence of “as” should be “at”.

In claim 13, at line 2, “received at least one” should be “at least one received”. See claim 3, line 7.

In claim 22, at line 1, “received” should be “receiver”.

In claim 39, at line 2, “received at least one” should be “at least one received”. See claim 26, line 5.

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

6. Claims 3-49 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 3 and 26, at line 3, “height-staggered” is indefinite because it is unclear what is defined by this term. Further, this term appears to be inaccurate since the rows of receivers shown in Fig. 2 are not “staggered”.

Claims 6 and 32 are indefinite because they define a light signal “type” as a frequency, modulation or break-make ratio. Frequency, modulation and break-make ratio are characteristics of all light signals and therefore do not constitute specific “types”.

In claims 6 and 32, at line 2, it is unclear what is meant by “break-make ratio”. This unconventional term has not been clearly defined in the specification.

Claims 8 and 34 are indefinite because they define the location of certain elements in relation to a person’s anatomy. Since people come in different sizes, the scope of the claim is unclear. Further, a person cannot be included as part of the claimed invention.

In claims 9 and 35, at line 2, “the head restraint” lacks proper antecedent basis.

In claims 10 and 36, at line 2, “the roof liner” lacks proper antecedent basis.

In claims 13 and 39, at line 3, “to determine the body position” is inconsistent with claim 3, line 8 and claim 26, line 6 which state that the analyzing unit determines body “posture”.

In claims 16 and 42, at line 3, “a respective one of the at least one light receiver” is indefinite and confusing. The use of “respective” implies that there are plural receivers, but the term “at least one light receiver” is not limited to plural receivers.

In claim 26, at line 3, “at least one light receiver...in a height-staggered fashion” is indefinite because one receiver cannot be “staggered”.

In claim 28, at lines 1-2, “...transmitter disposed in a receiving area defined by the at least one light receiver” is indefinite because it is inaccurate. The receiver (not the transmitter) is located in the “receiving area”, i.e., the area that receives the light signals.

### ***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 1, 2, 26-32, 36 and 46-49 are rejected under 35 U.S.C. 102(b) as being anticipated by Stanley (US 6,220,627). Stanley discloses a passenger sensing system including: a receiver 24 located in a seat back 26; a transmitter 22 located in a roof liner (see Fig. 1); and an analyzing unit 50 that determines whether a passenger is seated against the seat back 26 or positioned close to an air bag inflator 40 (i.e. leaning forward) based on the type or intensity of the signals received from the transmitter 22 by the receiver 24 (see column 11, line 60 to column 12, line 28). The transmitter 22 and receiver 24 may emit and receive light or infrared signals (see column 16, lines 16-24). The location of the transmitter and receiver may be reversed (see column 11, lines 36-37). The transmitter emits signals at a specific frequency (see column 11, lines 16-26).

### ***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out

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the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

11. Claims 3-8, 10, 17-25, 33, 34 and 43-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stanley (US 6,220,627) in view of Bergholz et al. (EP 963887). Stanley lacks a system including plural transmitters and/or plural receivers. Bergholz et al. teaches a passenger sensing system including: plural transmitters (see Fig. 1) located in a seat back and connected to a light source 4 by optical wave guides 6; and plural receivers (see Fig. 1) located in a roof liner and connected to optical detectors (i.e., analyzing units) 13 by wave guides 7. From this teaching of Bergholz et al., it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Stanley by providing plural transmitters and plural receivers in order to increase the accuracy and precision of the passenger sensing system. With respect to claims 8 and 34, it would have been an obvious matter of design choice to position the transmitters or receivers closer together in the lower portion of the seat back in order to optimize the performance of the sensing system for a given application. Further, such a modification involving a mere change in distance/location is generally considered to be within the level of ordinary skill in the art.

12. Claims 11-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stanley in view of Bergholz et al. as applied to claim 3 above, and further in view of Spies (US 5,585,625). The Stanley and Bergholz et al. combination lacks analyzing units positioned together with the receivers in a sensor module. Spies teaches a passenger sensing module including an analyzing unit 202 positioned together with a receiver lens 107 and filter 208. From this teaching of Spies, it would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify Stanley by positioning the analyzing units together with the receivers in a sensor module in order to increase the response time of the sensing system and reduce losses due to long transmission paths. With respect to claim 16, Spies teaches a transmitter lens 106.

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13. Claims 37-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stanley (US 6,220,627) in view of Spies (US 5,585,625). Stanley lacks an analyzing unit positioned together with the receiver in a sensor module. Spies teaches a passenger sensing module including an analyzing unit 202 positioned together with a receiver lens 107 and filter 208. From this teaching of Spies, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Stanley by positioning the analyzing unit together with the receiver in a sensor module in order to increase the response time of the sensing system and reduce losses due to long transmission paths. With respect to claim 42, Spies teaches a transmitter lens 106.

#### *Allowable Subject Matter*

14. Claims 9 and 35 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

#### *Conclusion*

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Gioutsos et al., Griffin et al., Yasui, DE 19547373, JP 10100854 and JP 10129418 teach optical occupancy sensor systems.

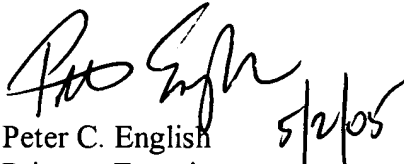
16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter C. English whose telephone number is 571-272-6671. The examiner can normally be reached on Monday through Thursday (7:00 AM - 5:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul N. Dickson can be reached on 571-272-6669. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Peter C. English  
Primary Examiner  
Art Unit 3616

pe  
2 May 2005